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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-----------------------|---------------------|------------------|
| 10/785,419 | 02/25/2004 | Timothy Corbett-Clark | 117-494 | 8363 |
| 23117 | 7590 | 09/15/2006 | EXAMINER | |
| NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203 | | | LIN, SHEW FEN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2166 | |

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------|------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/785,419 | CORBETT-CLARK, TIMOTHY | |
| | Examiner Shew-Fen Lin | Art Unit 2166 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 February 2004.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-18 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 20 May 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>5/20/2004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- a. This action is responsive to communications: application filed on 2/25/2004.
- b. Claims 1-18 are pending in this Office Action.

Priority

Applicant's claim for the benefit of a prior-filed application UK 0304533.3, filed on 02/27/2003, under 35 U.S.C. 119(a)-(d),) is acknowledged.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

The drawings are objected to because Figure 4 fails to show the referred items: "tag node 50", "tag nodes 51, 52 and 53", "tag nodes 54, 55 and 56", "50a, b, c, d", "52a, b", and "(50a-c)" as disclosed in page 11.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 15 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites the limitation "the audit nodes being undeletable and timestamped" which raises the question how to manage the database when the audit nodes (data nodes) can be added without limitation and how to add the audit nodes when there is no available storage available.

Claim 15 recites the limitation "each of said workstations being usable in isolation" and it is unclear whether each workstation can individually access the data or each workstation can access data without network connection.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9 and 15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "said replication service" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "said providing" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections – 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claim 1, even the preamble recites "a database system", there is no evidence in the specification that a term or phrase which may be interpreted as software, hardware or

combinations thereof necessarily includes hardware (memory, processor), it should be interpreted in its broadest reasonable sense as software. In addition, all elements of the claims such as "a database", "structure of linked data, "tag nodes, and "audit nodes" are not physical structural element, but instead application program, or software. These claims are therefore non-statutory subject matter because they are software per se, and not tangibly embodied.

Regarding claims 2-18 depend from rejected claim 1, comprise the same deficiencies as those claims directly or indirectly by dependence, and are therefore rejected on the same basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 and 13-18 rejected under 35 U.S.C. 102(e) as being anticipated by Sharon Crawford ("Windows 2000 Pro: The Missing Manual", O'Reilly Publisher, November 2000, hereinafter referred as Crawford).

As to claim 1, Crawford discloses a database system for storing data in a database (window directory database, Figure 4-1), the database comprising a structure of linked data nodes corresponding to a natural hierarchy of the data (window directory/folder is a hierarchical file system, Figure 4-1, 4-4), the nodes being of two types: tag nodes (folder, for example, "My

Documents", Figure 4-1), forming the linked structure of the database (folder/subfolders, Figure 4-1), and audit nodes (files, Figure 4-1) which are children of tag nodes (files in a folder, Figure 4-1), data at a particular level of the natural hierarchy being entered into the database being stored in audit nodes formed on entry of said data as children to the tag node at the point in the structure corresponding to said level (folder is the entry for its data files, Figure 5-2), the audit nodes being undeletable (files with read-only attribute, Figure 5-3, Section 5.2.2) and timestamped (each file is associated with time created/modified, Figure 4-1, 5-3), changes to the stored data being effected by the addition of new audit nodes (add new data files to folder by creating /copying, Section 5.3), whereby the audit nodes form an audit trail for the database (setup audit policy to audit access to individual objects, such as files, folder, Section 17.2).

As to claim 2, Crawford discloses a database system according to claim 1 wherein a request to return the value of current data stored in the database is serviced by a tag node extracting the value of its most recently added child audit node (display files based on date and retrieve the most recent file, Section 4.2.1).

As to claim 3, Crawford discloses a database system according to claim 1 wherein a request to return the value of data as recorded at a given time in the past is serviced by a tag node extracting the value from the most recently added child audit node before said time (search file based on time, Section 3.6.1.1).

As to claim 4, Crawford discloses a database system according to claim 1 wherein the tag nodes store secondary data, the secondary data being data which has been automatically deduced from the data in the audit nodes (folder summary information, i.e. number of objects, size, Figure 4-1).

As to claim 5, Crawford discloses a database system according to claim 4 wherein the secondary data at a particular tag node comprises summary data summarising the content of audit nodes below said particular tag node in the natural hierarchy (folder summary information, i.e. number of objects, size, Figure 4-1).

As to claim 6, Crawford discloses a database system according to claim 1 comprising a replication service for replicating data by copying nodes (copy folder, Section 5.3).

As to claim 7, Crawford discloses a database system according to claim 6 wherein the replication is achieved by first copying database structure as tag nodes and second copying data as audit nodes (copy folder name(directory) first copy then associated files, Section 5.3).

As to claim 8, Crawford discloses a database system according to claim 7 wherein the replication is selective by only copying nodes below given points in the hierarchy (any folder/subfolder, Section 5.3).

As to claim 9, Crawford discloses a database system according to claim 5 wherein said replication service occurs asynchronously of data input to the database (copy command can be executed asynchronous with data input, Section 5.3).

As to claim 10, Crawford discloses a database system according to claim 1 wherein the audit nodes comprise pages of data digitally signed by the user entering the data (add signature to files, Section 12.8.5).

As to claim 11, Crawford discloses a database system according to claim 1 wherein each node has a unique identification code (each folder and files has unique name, Section 5.2).

As to claim 13, Crawford discloses a database system according to claim 11 wherein said unique identification code comprises codes representing a workstation, a sequence code for that workstation and a counter for that sequence (file name includes the path to the workstation, drive, folder, user can define “ShareName” which can be any sequence, number, user name, Section 13.1.1.1).

As to claim 14, Crawford discloses a database system according to claim 13 wherein said unique identification code further comprises a code representing a user 9 file name includes the path to the workstation, drive, folder, user can define “ShareName” which can be any sequence, number, user name, Section 13.1.1.1).

As to claim 15, Crawford discloses a database system according to claim 1 comprising a plurality of workstations across which the database is distributed, said providing for data input to said database, each of said workstations being usable in isolation to add data to the database (folder/files can be process off-line, Section 14.3).

As to claim 16, Crawford discloses a database system according to claim 1 wherein graphical user interfaces are provided for guiding entry of data to the database (Figure 4-4), the configuration of said graphical user interfaces being controlled by configuration data stored in audit nodes distributed across said database (GUI depends on data type, Figure 4-3).

As to claim 17, Crawford discloses a database system according to claim 16 wherein the configuration of said graphical user interfaces may be changed by replication of new audit nodes across the database (change view, Figure 4-5).

As to claim 18, Crawford discloses a database system according to claim 16 wherein the configuration of a graphical user interface for guiding data entry at one level in the hierarchy is controlled by configuration data (file extension, Section 7.6, based on file extension, different graphic interface is provided for data entry) stored in an audit node (file, Section 7.6) which is a child of a tag node at a higher level in the hierarchy (file is a child of folder, Figure 7-7).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford in view of Owen (US Patent 7,075,676).

As to claim 12, Crawford discloses the elements of claims 1 and 11 as noted above but does not explicitly disclose comprising a bar code generator for generating a bar code encoding said unique identification code whereby physical items may be associated with a node by application thereto of said generated bar code.

Owen discloses a method to encode at least one property of the document as barcodes and user can select barcode as part of printing document (Figure1, item 14, column 1, lines 66-67, column 2, lines 1-3, lines 43-47). The barcode may identify the machine upon which the file is stored, a file name, or file identifier (column 2, lines 59-67).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify Crawford's disclosure to include generating a bar code encoding the unique identification code of a file as taught by Owen for the purpose of identifying files using a barcode (column 2, lines 59-67, Owen). The skilled artisan would have been motivated to improve the invention of Crawford per the above such that bar code can be used as a file identifier where the user can retrieve the file by entering the file identifier (column 2, lines 64-47, Owen).

Related Prior Arts

The following list of prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kloos; Siegbert R. et al., US 7089247 B2, "System and method for resolving a discrepancy in a clinical data management system"
- Wallach; Matt et al., US 6904434 B1, "Method and system for providing real-time clinical trial enrollment data"

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- Eisenberg; Neal Richard et al., US 5890166 A, "Versioned-database management system in which tasks are associated with promote groups which comprise a set of parts whose changes are to be promoted"

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shew-Fen Lin whose telephone number is 571-272-2672. The examiner can normally be reached on 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shew-Fen Lin
Patent Examiner *LFN*

Art Unit 2166
September 8, 2006



MOHAMMAD ALI
PRIMARY EXAMINER